

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	262	525/417.ccls.	USPAT	2002/10/18 12:50
2	BRS	L2	9	1 and polythiophene	USPAT	2002/10/18 12:55
3	BRS	L3	0	525/417.ccls.	US-PGPU B	2002/10/18 12:55

L3 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2002 ACS  
 AN 1995:463658 CAPLUS  
 DN 122:241264  
 TI Block copolymers with conjugated segments: synthesis and structural characterization  
 AU Francois, B.; Widawski, G.; Rawiso, M.; Cesar, B.  
 CS Institute Charles Sadron, Strasbourg, Fr.  
 SO Synthetic Metals (1995), 69(1-3), 463-6  
 CODEN: SYMEDZ; ISSN: 0379-6779  
 PB Elsevier  
 DT Journal  
 LA English  
 CC 37-5 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 36, 38  
 AB Sol. block copolymers were prepd. with conjugated sequences, i.e., poly(p-phenylene) (PPP), polythiophene (PT), and poly(3-hexylthiophene) (PHT), and sol. satd. sequences, i.e., polystyrene (PSt), and PMMA. X-ray, and neutron scattering studies of some of these copolymers show that they are organized in quasi spherical micelles. Films with a regular porous honeycomb morphol. were prepd. with doped and undoped PSt-PPP copolymers by evapn. of their solns. in CS2.  
 ST block copolymer conjugated segment prepn; polyphenylene block copolymer prepn characterization; **polythiophene block copolymer** prepn characterization; polyhexylthiophene block copolymer prepn characterization; PMMA conjugated block copolymer prepn; polystyrene conjugated block copolymer; morphol conjugated block copolymer  
 IT Polymer morphology  
 (honeycomb; prepn. and structural characterization of block copolymers contg. conjugated segments)  
 IT Chains, chemical  
 (prepn. and structural characterization of block copolymers contg. conjugated segments)  
 IT Polyphenyls  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and structural characterization of block copolymers contg. conjugated segments)  
 IT 116038-32-5DP, 1,3-Cyclohexadiene-styrene block copolymer, dehydrogenated 162410-76-6DP, 1,3-Cyclohexadiene-methyl methacrylate block copolymer, dehydrogenated 162410-77-7P, 2,5-Dibromothiophene-styrene block copolymer 162410-78-8P, 2,5-Dibromo-3-hexylthiophene-styrene block copolymer  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and structural characterization of block copolymers contg. conjugated segments)

*hopefuly this is electron copolymer*  
*John 4 707527*

L3 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS  
 AN 1995:397907 CAPLUS  
 DN 122:189063  
 TI Structure of Thiophene-Based Regioregular Polymers and Block Copolymers and Its Influence on Luminescence Spectra  
 AU van Hutten, Paul F.; Gill, Richard E.; Herrema, Jan K.; Hadziioannou, Georges  
 CS Department of Polymer Chemistry, University of Groningen, Groningen, 9747 AG, Neth.  
 SO Journal of Physical Chemistry (1995), 99(10), 3218-24  
 CODEN: JPCHAX; ISSN: 0022-3654  
 PB American Chemical Society  
 DT Journal  
 LA English  
 CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

- AB Two approaches toward control of the luminescence wavelength of polythiophenes were explored: (i) block copolymers in which oligothiophene blocks alternate with oligosilanylene blocks and (ii) regioregular polythiophenes in which oligothiophene sequences are delimited by n-octyl substituents placed in a ~~head-to-head~~ fashion on adjacent rings. Both methods aim at restricting the .pi.-conjugation to the oligothiophene sequences. The block copolymer approach is very effective, whereas the (soln.) luminescence spectra of the regioregular polymers are strongly red-shifted with respect to absorption and confined to a narrow range of wavelengths. This is due to the quinoid character of the excited singlet state, in which there is a strong electronic driving force toward coplanarity of adjacent thiophene rings, which offsets the steric hindrance of the octyl substituents and increases the size of the conjugating .pi.-system. This explanation is supported by calcns. and by spectral data of substituted bithiophenes.
- ST regioregular **polythiophene block copolymer**  
luminescence
- IT Luminescence  
(structure and luminescence of thiophene-based regioregular oligomers and polymers and polysilylene block copolymers)
- IT Molecular structure-property relationship  
(luminescence, structure and luminescence of thiophene-based regioregular oligomers and polymers and polysilylene block copolymers)
- IT Polymers, properties  
RL: PRP (Properties)  
(polythiophenes, structure and luminescence of thiophene-based regioregular oligomers and polymers and polysilylene block copolymers)
- IT Polysilanes  
RL: PRP (Properties)  
(thiophene group-contg., structure and luminescence of thiophene-based regioregular oligomers and polymers and polysilylene block copolymers)
- IT 110-02-1, Thiophene 492-97-7, 2,2'-Bithiophene 1081-34-1, 2,2':5',2''-Terthiophene 5632-29-1, Tetrathiophene 18245-28-8 65016-62-8, 3-Octylthiophene 104934-51-2, 3-Octylthiophene homopolymer 118824-87-6 120762-66-5, 4,4'-Dioctyl-2,2'-bithiophene 120762-67-6, 4,4'-Dioctyl-2,2'-bithiophene homopolymer 138058-53-4, 3,3'-Dioctyl-2,2'-bithiophene 147463-22-7 150504-15-7, 3-Octyl-2,2'-bithiophene 153938-82-0 155648-13-8, 4',3''''-Dioctylhexathiophene 160581-43-1 161745-98-8 161745-99-9 161746-00-5 161746-01-6 161746-03-8 161746-05-0 161746-06-1, 3,4-Dioctylthiophene 161746-07-2, 3,3',4,4'-Tetraoctyl-2,2'-bithiophene 161746-08-3, 3,4-Dioctylthiophene homopolymer 161746-09-4 161746-10-7 161746-11-8 161746-12-9 161746-13-0 161746-14-1 161746-15-2 161746-16-3 161746-18-5 161746-20-9  
RL: PRP (Properties)  
(structure and luminescence of thiophene-based regioregular oligomers and polymers and polysilylene block copolymers)
- L3 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2002 ACS
- AN 1994:606816 CAPLUS
- DN 121:206816
- TI Fabrication of an electrically conducting full-interpenetrating polymer network
- AU Wang, Yading; Rubner, M. F.
- CS Dep. Mater. Sci. Eng., Massachusetts Ins. Technol., Cambridge, MA, 02139, USA
- SO Materials Research Society Symposium Proceedings (1992), 247(Electrical, Optical, and Magnetic Properties of Organic Solid State Materials), 759-64 CODEN: MRSPDH; ISSN: 0272-9172
- DT Journal
- LA English

CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 76

AB Full-interpenetrating polymer networks (IPN) comprised of a styrene crosslinked polythiophene deriv. and a crosslinked polystyrene network were synthesized and characterized. The IPNs were prepd. by first crosslinking the pendant groups of a vinyl derivatized polythiophene with styrene monomer and then polymg. and crosslinking styrene monomer in a swollen gel of the crosslinked polythiophene network. The doped forms of these full-IPNs reached conductivities as high as 0.5 S/cm. Cond. stability studies showed that the IPNs are more stable than the as-prepd. conjugated polymer at 40 .degree.C but somewhat less stable at 80 .degree.C.

ST elec conducting interpenetrating polythiophene network; styrene divinylbenzene **copolymer polythiophene** interpenetrating network

IT Electric conductivity and conduction  
 Ultraviolet and visible spectra  
 (doped elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT Electric conductors, polymeric  
 (prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT Plastics  
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT 7705-08-0, Iron trichloride, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (dopant; prepn. of doped elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT 9003-70-7P, Styrene-divinylbenzene copolymer  
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (full-interpenetrating networks with bromooctylthiophene homopolymer, crosslinked; prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT 153735-24-1DP, dehydrobrominated  
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (full-interpenetrating networks with styrene-divinylbenzene copolymer, crosslinked; prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT 153735-24-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)

IT 872-31-1 2695-48-9, 8-Bromo-1-octene 125878-92-4 158134-38-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reactant in prepn. of vinylhexylthiophene-bromooctylthiophene copolymer; prepn. of elec. conducting full-interpenetrating networks of vinylhexylthiophene-bromooctylthiophene copolymer and styrene-divinylbenzene copolymer)